Visualising Lived Experience: Mapping the soundscape of an after-school Minecraft Club

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Published version

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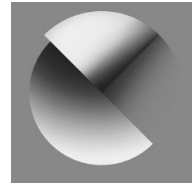
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ABSTRACT

This article demonstrates the power of employing alternative, interpretative analysis techniques in ethnographic work. The author argues for the role of sensory interpretation as a valid and necessary method of analytical enquiry, particularly to challenge existing dominant, primarily written discourses that often strive for unrealistic empirical objectivity. In order to make this argument, he demonstrates a combined sonic/visual, interpretative approach to analysis, developed to explore the lived experience of a group of children in an after-school club that took place in and around the world-building videogame Minecraft. Here, inspired by research which takes artistic and exploratory approaches towards knowing, the author employs interpretative drawing as an analytical move. Underpinned by the work of Deleuze and Guattari (see *A Thousand Plateaus*, 1987: 12), the author produces a visual 'map' of soundscape data as a means of exploring potentially side-lined aspects of lived experience, through a process of resemiotization. Developing this sonic/visual approach in context – a process that had an impact on both the analyst and the analysis – helped to shed new light on the site under investigation. As such, this article builds on other analyses of sound in children's social and educational experience by proposing that interpretative, visual responses to soundscape data can add value to otherwise purely written, or purely sonic, accounts.

KEYWORDS

analysis • children • digital drawing • lived experience • play • sound • soundscape • visual

Make a map, not a tracing. (Deleuze and Guattari, 1987: 12)

INTRODUCTION

This article demonstrates the power of employing alternative, interpretative analysis techniques in ethnographic work. I argue for the role of sensory interpretation as a valid and necessary method of analytical enquiry, particularly to challenge existing dominant, primarily written discourses that often strive for unrealistic empirical objectivity. In order to make this argument, I demonstrate a combined sonic/visual, interpretative approach to analysis, developed to explore the lived experience of a group of children in an after-school club that took place in and around the world-building videogame Minecraft. Here, inspired by principles of Arts-Based Research (ABR) which position art as a means of 'investigation and knowing' (Pentassuglia, 2017: 3), I employ interpretative drawing as an analytical move. Underpinned by the work of Deleuze and Guattari (1987: 12), I produce a 'map' of soundscape data as a means of exploring potentially side-lined aspects of lived experience through a process of resemiotization or transduction (Bezemer and Kress, 2008). Developing this sonic/visual approach in context – a process that had an impact on both the analyst and the analysis – helped to shed new light on the site under investigation. As such, this article builds on other analyses of sound in children's social and educational experience by proposing that interpretative, visual responses to soundscape data can add value to otherwise purely written, or purely sonic, accounts.

Sound provides a lens here for exploring the vibrant, messy and sometimes 'unnoticed' (Pink, 2012: 4) aspects of the social world. The composer John Cage suggests that 'The world is teeming . . .' (Cage, 1973: 96). Whilst conventional methods may fail to capture or engage with the complex, 'teeming' aspects of social experience, taking an interpretive, sensory approach forces the researcher to directly confront these dimensions. Making use of the ideas of Deleuze and Guattari (1987: 10) helps us to understand sound as 'rhizomic', entangled and integrated with the social, rather than providing a peripheral soundtrack to events. Sound is embedded in social experience, but can easily be overlooked by methods which otherwise privilege the spoken or the easily observed. As such, the resulting pictorial 'map' (p. 12), created by the researcher, is considered an exercise 'oriented toward an experimentation in contact with the real' (p. 12); a means of experimenting with and interpreting empirical sensory data. As well as providing an underpinning framework for this research, the work of Deleuze and Guattari (1987) also supports the later interpretative analysis. Masny and Cole (2009) suggest that Deleuze and Guattari (1987) encourage a 'spontaneous and joyful approach to theorisation' (p. 3), one that is here in synergy with the fieldsite under investigation.

In this article, I begin by exploring literature that uses sound as an integral aspect of methodology. I then introduce the club that formed the basis

of this study. Next, I demonstrate how this sonic/visual analysis provided insights into the fieldsite and participants' experiences. Finally, I discuss specifically how this sonic/visual analysis enabled me to interact with the data in distinct ways that more conventional methodological approaches may not have achieved.

THE STUDY OF SOUND

Theoretical understandings of sound

The 'dynamic' (Labelle, 2010: xix) field of sound studies considers sound as an 'analytical point of departure or arrival' (Sterne, 2012: 2) to explore 'what sound does in the human world, and what humans do in the sonic world'. A focus on 'auditory culture' (Bull and Back, 2015: 1) comes, according to Sterne (2012: 3), as an 'intellectual reaction to changes in culture and technology', as a means of understanding the contemporary social milieu. As well as being the product of social interaction, sound is implicated in the social production of spaces. Building on an understanding of (social) space as socially constructed (Lefebvre, 1991), Labelle (2010: xvi) suggests that sound creates a 'relational space, a meeting point' as 'the flows of surrounding sonority . . . weave an individual into a larger social fabric' (p. xxi).

Feld's (2012: xxvii) term 'acoustemology', or acoustic epistemology, suggests the integral role of sound in enhancing our understanding of the world, arguing 'for sound as a capacity to know' (p. xxvii). Here, sound is not ephemeral or supplementary to lived experience; it is a crucial constituent part of making meaning. Furthermore, considering sound moves us 'from cognition to bodily knowing' (p. xxx) – a means of embodied understanding, rather than merely soundtracking events. Similarly, for Gershon (2013b: 258) sounds act as indicators of influence, but also as influencers that 'resonate in our bodies . . . as something that is felt'. Gershon talks of 'the interconnectedness of things' (p. 257), suggesting that 'if everything vibrates, then everything . . . has the potential to affect and be affected by another aspect of everything' (p. 258).

Collectively, the sounds present in any situation are often referred to as a 'soundscape' (Schafer, 1993: 4), often consisting of voices and ambient sounds. These sounds are human and non-human, with neither afforded greater validity (Gershon, 2013b: 258). Schafer (1993: 10) suggests that these environmental soundscapes consist of three broad dimensions: Firstly, 'keynote' sounds 'do not have to be listened to consciously; they are overhead but cannot be overlooked' and are often created by the geography of a space. Secondly, 'signals' are sounds that are 'listened to consciously', often in the foreground. Thirdly, 'soundmarks' (derived from 'landmark') are unique sounds, 'specially regarded or noticed by the people in that community'. This community aspect of the soundscape is significant when considering sound in relation to lived experience in social spaces.

Van Leeuwen (1999: 17) suggests an alternative but similar set of sound markers: 'Figure, Ground and Field'. These are categorizations of sound perspective, aligned with ideas of foreground, mid-ground and background and 'dependent on the position of the listener'. These constitute a scale of importance of sound in relation to the listener, with the 'figure' being the most important, the 'ground' being relevant but less involving, and 'field' involving the physical rather than the social world of the listener. For the purposes of this article, Shafer's (1993) terminology is mobilized instead of that of Van Leeuwen (1999) as it does not necessitate judgement of the relative 'importance' of sound, does not differentiate the physical from the social and also enables the understanding of a sound feature in more than one category more easily than Van Leeuwen's (1999) more positional terminology does.

Sound studies in social spaces

Several existing, diverse studies focus on sound to explore the lives of people in relation to the social spaces and environments they inhabit. For instance, Feld (2012) explores the lives of the Kaluli people in Papua New Guinea, using sonic anthropology to explore their interactions within the rainforest. Feld's focus on the 'socio-acoustics' drew on instances of song and music, but also 'verbal art, poesis, and vocalised performance' alongside 'copresent bio- and socio-acoustics, the interanimation and interarticulation of human and non-human sounds' (p. xxxiv). Chandola (2012) portrays everyday life in the slums of Govindpuri, Delhi, through a consideration of the soundscape of waterways, demonstrating how sounds of physical space are entwined with the experiences of those who inhabit it. Labelle (2010: xxi) considers how space is shaped by sound, exploring the 'acoustic territories' of urban space. He suggests that a consideration of sound 'imparts great flexibility' when considering experience of space, as the fluidity of sound involves 'displacing and replacing the lines between inside and out, above from below'. Sound flows in ways that other dimensions of experience perhaps do not, making it a particularly rich and malleable data source.

Daughtry (2015: 3) explores the sounds of war in Iraq, through a focus on the 'belliphonic' ('the spectrum of sounds produced by armed combat'), with an emphasis on sound in relation to power, violence and space. He describes how the soundscape of war gave 'access to new forms of knowledge' (p. 5), demonstrating how the sound was generated by, and generative of, the experience of war for soldiers and civilians. In a more domestic setting, Lyon and Back's (2012: 2) study of fishmongers in a London market considers 'the background sounds' and 'the aural dimensions of the interactions and banter', demonstrating how studies of sound can take account of environmental sounds, in conjunction with the meaning of the words spoken. Dean (2016) provides a 'sensory sociology' of place, in his ethnographic account of a 'dying' university building. He explores the spatial and experiential aspects of admin-

istrative university life, using sound to explore the human and non-human dimensions, reflecting on the relational, social and fundamentally human aspects of university life that are threatened by 21st-century educational practices. Sound is aligned with emotion, with feeling and shared experience, even in relation to the mundane aspects of life in an establishment.

The above studies examine soundscapes in diverse social contexts. As the Minecraft club that provides the context for this article was a schooled social space, it is also useful to consider the work around sound studies in educational settings.

Sound studies in schooled spaces

Whilst not being an established method in this domain, a handful of studies take a sound studies approach to educational spaces. Gershon (2013b: 257) suggests that sound can 'form educational systems of knowledge', influencing how people know their world. Sound is implicated in all educational experiences and therefore considered a 'methodologically valuable' (p. 258) site of study. Focusing on younger students, Brownell and Wargo (2017: 212) mobilize Shaffer's (1993) 'earwitnessing' to encourage pre-service teachers to reflect on students' culturally diverse lives, helping teachers to become 'critically attuned to the fluidity of identity'. They call for critical reflection in relation to sound, acknowledging that interpretations of sound could become subject to reinforcing stereotypes and biases. Similarly, Wargo (2017: 406) documents 'the vitality of classroom life', considering the sonorous aspects of children's experiences in and around a literacy classroom. Through the concept of 'emergent listening' (p. 394), sound is a mode that 'depicts a set of social relations' (p. 394). In this context, sound 'created boundaries of place and community' (p. 399). This suggests that sound is a powerful force in shaping space and experience in the classroom, therefore warranting further attention. Powell and Somerville (2018: 19) study classroom literacy in relation to drumming, positioning sounds as entwined with affective, felt and embodied experience. With a focus on children's bodily responses, 'the refrain' of a drumbeat helps to articulate the ways in which meaning making and expression are the result of an interactive 'intermingling' of sound, bodies, material and other immaterial aspects.

Gershon's (2013a) notion of 'sonic ethnography' is exemplified in a study of fifth-grade students in science class, where 'the sounds students make in talk, interaction, and in music are consequential' (Gershon, 2013b). Rather than offering a written conclusion, Gershon presents a 'lack of resolution', providing a lengthy audio representation of the fieldsite, including reflections from the teacher and pupils, songs produced by students and other classroom sound. This leaves the reader to interpret the sonic environment, suggesting that the transduction of sonic data into writing should not be considered a default move in social research.

Considered collectively, these studies demonstrate the value of pursuing a methodology centred on sound to illuminate the complex detail of lived experience. Inspired by these papers, I am working with an understanding of sound as involved in the shaping of space (Wargo, 2017), as an effective way of exploring everyday life (Chandola, 2012; Lyon and Back, 2012), as flexible as a data source (Labelle, 2010), as a means of exploring power relations (Daughtry, 2015), as affective and embodied (Powell and Somerville, 2018) and as a relevant methodological approach in educational contexts (Dean, 2016; Gershon, 2013).

Dealing with sound

Whilst sound has methodological benefits, there are challenges around how to manage, interpret and represent sound as data, particularly due to the 'misfortune of having to present data on silent pages' (Schafer, 1993: 8). The question remains: how can we make qualitative sense of sound? Schafer suggests that 'we can talk about sounds or we can draw them' (p. 123). 'Talking' (albeit using the written word) is often the default means of responding to sound in research contexts; most of the studies outlined above involve written reflection on a soundscape.

However, there are some exceptions. Gershon (2013b: 259) offers sound as a conclusion, suggesting that inviting the reader to interpret the sonic data helps to 'remove a layer of authorial translation'. Elsewhere, Dean (2016) and Wargo (2017) provide a link to access recorded examples of sound recorded during their fieldwork as a supplement to their written work, rather than as a conclusion. Arguably this approach still 're-introduces sonic aspects that are removed in their translation to text' (Gershon, 2013b) whilst also allowing for a written, textual interpretation. In spite of this movement towards presenting the aural as an aspect of a research output, there is still a presiding expectation that the social sciences researcher will offer a paper-based interpretation, particularly given the institutional push to publish research on those 'silent pages' (Schafer, 1993: 8). Indeed, Gershon (2013b) acknowledges that cartographic, narrative and graphic responses to sound may provide a way forward for a different kind of sonic ethnography. Considering this, and Schafer's (1993) suggestion of drawing as a viable response to sound, I intend to describe the visual aspect of the sonic/visual approach as a possible way forward for studies that use sound. However, I will first outline this study's context.

METHODOLOGY
The fieldsite

The data that I work with in this article consists of different sound sources gathered during a study of an after-school Minecraft club. The club ran for one session per week for 26 weeks during the academic year 2014/2015. The club was a space set up for children to play Minecraft, a first-person perspective,

virtual world video game that can be played by multiple players. The game's landscape is constructed using coloured blocks, sometimes likened to a kind of virtual Lego (Garrelts, 2014: 43). Players can inhabit, interact and create in a shared world. I ran the Minecraft club that forms the basis of this study but the club was largely child-led, with the children choosing the focus of their play after being given the initial instruction to 'create a virtual community'.

During the club, the children engaged in lively and imaginative play, communicating in the classroom that formed the club's physical space, using laptops to play Minecraft. They described their behaviour during the club as 'banter', a word which also partially formed the name they chose for their virtual world: 'Banterbury'. Sound became a focus of this study because the room was rarely quiet. Children sang, danced, did impressions, told jokes, laughed and acted out roles. Conversation often digressed from Minecraft, to the extent that Minecraft sometimes seemed a digression. Play was loud, messy, inconsistent, exuberant, problematic and, sometimes, mundane.

Written consent for this research was sought from children's parents and the children themselves. Although this particular interpretation of the sonic data did not involve the children (relying, as it does, on a retrospective researcher analysis, the result of an analytical process that emerged from the data rather than being planned from the outset), they did have an input into other analyses of the club's lived experience and were actively involved in generating data, through formal and informal discussion and via operation of the video and audio recording technology used as part of the club's data generation processes.

Sound and lived experience

Sound data were generated during an ethnographic study of the club. Ethnography is concerned with investigating the lives of a group of people, describing what participants do and the meanings they ascribe to their actions (Wolcott, 1999), whilst locating a site within the wider social, cultural and historical contexts (Flewitt, 2011). A focus on 'lived experience' directed my gaze towards the children's participation. Whilst 'lived experience' is often associated with phenomenological methodologies, where 'priority is given to actors' accounts of social reality' (Scott, 1996: 64), here the term describes what human participants did in the club and how they experienced it. This includes their expressed motivations, understandings of and feelings towards club's events. Here, lived experience is made of multiple (lived) experiences, intertwined, complex and inextricable. I was not seeking a uniform or definitive account but one that acknowledged the diversity of the multiple individual and co-constructed experiences that made up the group experience.

Audio was recorded as a component of video data generated during fieldwork. Children used a handheld GoPro action camera that they passed

around the club. Screencast data recorded the sound in the room and in the game. These sources enabled retrospective re-interrogation of the club's sound.

Re-presenting sound: curated soundscape

The first stage of this combined sonic/visual approach involved the assembly of an audio representation of the club's soundscape, taking extracts from across the total 43 hours of audio data. This could be understood as an audio version of Dean's (2016: 3) 'composite narrative' or as a sonic 'rhizome' (Deleuze and Guattari, 1987: 10) compiled from disparate but connected moments, rather than any chronological slice of time. Here, I repeatedly returned to the audio files, (re)listening carefully to the noise of the club, to the point of saturation. Whilst listening, I extracted (using 'Audacity' audio recording freeware) short clips of the sound, compiling these in a longer piece. I included sounds that could be considered keynotes, signals and soundmarks (Schafer, 1993: 10) to ensure that I was not being drawn to one type of sound, capturing both human and non-human sounds. These stages acted as a process of 'crystallization' (Richardson, 2003: 934), as the soundscape reflected multiple dimensions of the club's sound.

The soundscape provides an 'overall auditory picture' (Dean, 2016: 3) of the club. The audio version enables the listener to experience the sonic representation of the soundscape, in addition to (later) examining it on paper. As with other aural accounts (Dean, 2016; Gershon, 2013a; Wargo, 2017) this curated soundscape (accessible at: http://bit.ly/SoundscapeClub) leaves the sound 'open to the listener's interpretation' (Gershon, 2013b: 261), acknowledging that working with sound is an interpretive process performed by the listener rather than a replicable analytic move. However, here it is not the final product of analysis or an output of a 'sonic ethnography'. Whilst others (Dean, 2016; Wargo, 2017) have used similar recordings as the basis for a written commentary, I will next explain how this combined sonic/visual approach involves an additional, intermediate stage of analysis, involving drawing.

Re-presenting sound: visual mapping

There is a growing interest in visual research methods, particularly in what is often called graphic scholarship. Smith et al. (2015: 2), for instance, discuss using processes of 'visualising as analysis'. Visual methods of analysis have been positioned as an advantageous alternative (or supplement) to the use of the written word. Taussig (2011: 19) suggests that the process of committing observations to writing potentially 'obliterates reality, pushing it further and further out of reach' whilst drawing provides a means to 'capture something invisible and auratic' (p. 13). This makes drawing ideal when responding to sound, the latter being an unseen and often intangible aspect of the world. Causey (2017: 37) suggests that the drawing process enables the 'ethnographic mind to incorporate varied ways of knowing in a single moment'. This pro-
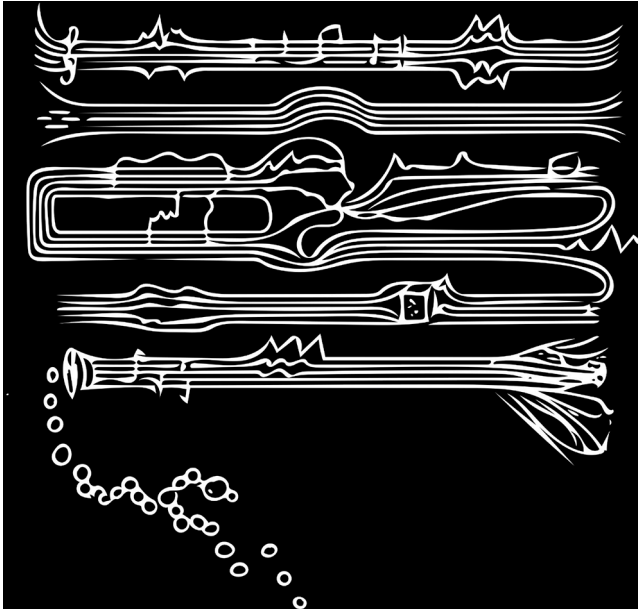
Figure 1. Soundscape 'map'. © Chris Bailey.

vides time to consider, reflect and develop understanding by considering multiple spatial and temporal aspects all at once, reflecting the composite nature of the soundscape assembled here.

Visual representations of sound enjoy a long history: waveforms, oscillograms and formal musical notation are all examples of sound made visual on screens and paper. The kind of formal representation made by such visualizations tends towards accuracy, standardization and unity. These result in what Deleuze and Guattari (1987: 12) might call a 'tracing', attempting to accurately reproduce an experience of phenomena. However, as Cage (in Revill, 2014: 222) suggests, 'unity doesn't recognise the abundance of things' and traditional visual representations are not designed to accurately respond to the abundant, diverse nature of socially recorded sound data. A more expressive and interpretive form of graphic notation can be found in Cage's (1969) volume of unconventional musical manuscripts that reflect the dynamics of sound through the varied and emotive annotation of musical staves. It is this work (and the 40th anniversary celebratory volume, Sauer, 2009) that inspired the visual response presented here (Figure 1). The kind of non-representational, interpretive visual methods exemplified in Cage (1969) could constitute a 'map' (Deleuze and Guattari, 1987: 12) of a soundscape, responding also to Gershon's (2013a) call for a cartographic response to sound. Mapping sound in these ways is not intended to provide a spatial record of the sounds in the room, but to represent the character or dynamics of the soundscape.

This visual response provides a 'representational and subjective form of reporting' (Dean, 2016: 3) that was originally drawn, using biro, on a blank musical score, as an experiment in developing a 'new form of discovery' (p. 2). This 'map', inspired by principles of Arts-Based Research (Pentassuglia, 2017), resulted from repeated listening to the sound data, including this compiled soundscape. As I listened, I made marks on the paper, as an embodied interpretation of the sound, thereby enacting a transduction (Bezemer and Kress, 2008: 169) of the data from one mode (sonic) to another (image). This formed the abstract lines and shapes, as well as more recognizable forms present on the page. For the purpose of publication, this page was scanned and the colours inverted. This image, as a flow of 'aural facts by visual signs' (Schafer, 1993: 123), is not a literal transcript of any one moment; neither is it 'prescriptive . . . a recipe of sounds to be made'. Rather, it provides a non-chronological impression of the club's soundscape, following my time in the club and re-experiencing of the data. Like the soundscape extract, this representation is 'rhizomic' (Deleuze and Guattari, 1987: 10), consisting of multiple, connected elements existing at the same time. Just as the visualizations in Cage (1969) seek deep engagement with a sonic piece on the part of the creator and the performer, so my drawn, interpretive analysis facilitates my engaged involvement with the soundscape whilst also inviting the reader into the process.

The next stage of interpretive analysis involved re-presenting the sound map as a non-linear comic strip (Figure 2). After the initial, free-form approach, this second analytical move generates a more refined interpretation of the club's soundscape. The act of remixing the image follows Deleuze and Guattari's (1987: 12) suggestion that 'the map is . . . detachable, reversable, susceptible to constant modification.' It is also inspired by the cut-up techniques, or decoupage, popularized by William Burrows and David Bowie (Green, 2017), whereby original, complete texts were reassembled to produce new meanings. The inclusion of words highlights possible interpretations of different aspects of the soundscape map. The human figure acknowledges my presence in the constitution of this visual account.

COMMENTARY

In this section, I consider the significance of the different types of sounds that contributed to the club's 'cacophony'. These words are a result of the thinking process that occurred during and after the sonic/visual analysis. My embodied reflection on the various dimensions of the soundscape, enacted through the drawing process (Figure 1) and the subsequent decoupage (Figure 2), benefit here from interpretation using other (written) theoretical perspectives on sound. This commentary draws on the work of others as a means of thinking with theory (Jackson and Mazzei, 2011), or thinking with the world (Holland, 2013). I demonstrate three ways in which the 'auratic' (Taussig, 2011: 13), distinctive qualities of the club's soundscape were bought to the surface by the
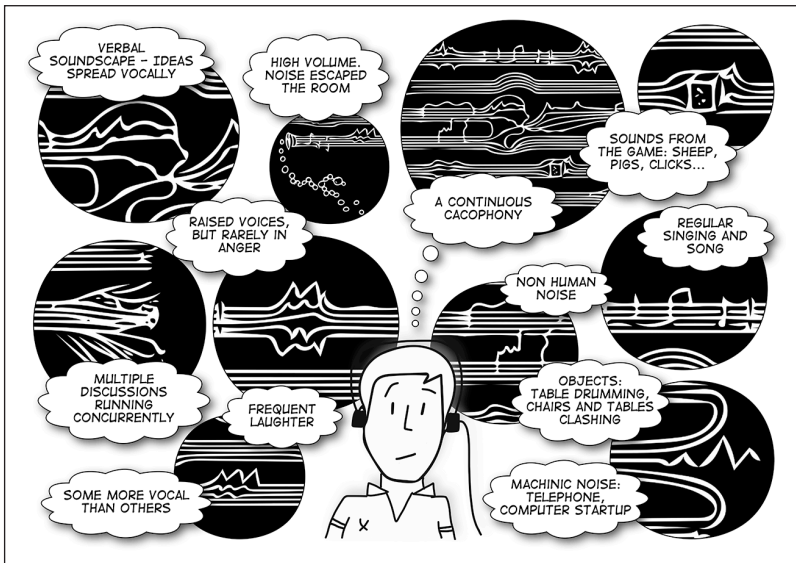
Figure 2. Non-linear soundscape comic. © Chris Bailey.

sonic/visual processes. Deleuze and Guattari's (1987) theory is enlisted again, this time to provide a perspective on the data, whilst also ensuring an overall coherence between this commentary and the wider conceptual framework proposed by this article.

Establishing group territory and resisting power

The interpretative analysis helped reveal how the group used sound to test, (re)position and push boundaries. The club was loud; the children's loud voices could be considered 'signals' (Shafer, 1993: 10). Deleuze and Guattari (1987: 311) discuss sound's involvement in 'organizing a space' where 'radios and television sets are like sound walls around every household and mark territories (the neighbour complains when it gets too loud)'. In the club, noise constructed conceptual 'walls of sound', as its resonances defied the physical boundaries of the classroom. Sound worked as a collective force, with a group capable of creating more vocal noise than an individual. As the volume increased, there was a sense that the children were taking control of the room, owning the space. I sometimes felt the encroaching volume of sound as a challenge to authority and felt the need to vocally intervene. Occasionally, the headteacher would enter the room or praise the children if they were found to be working at a low volume, or ask for quiet if the club was louder. In these instances, sound as a territorial move was combated with a call for quiet, with the adult voice acting as a sonic 'signal' (Shafer, 1993: 10). In response to these interventions, the volume temporarily receded as the children were reminded of what is considered an acceptable level of noise for an after-school

club involving the use of computers. Noise levels therefore related to issues of control: my perception was that quiet children indicated to others that the class was under my control. High volume potentially indicated the opposite. These incidents highlight how noise was subject to issues of power and control, emphasizing that sound is political.

The noise of furniture, a 'keynote' (Shafer, 1993: 10) sound, also cut through the other more persistent sounds in the club. This helps to highlight the reshaping of space that went on as a regular aspect of Minecraft club. The children spent a lot of time in their classroom but often had little control over it. Desks were often in rows at the beginning of the club as the children had been practising sitting in 'exam conditions' for their statutory SATs tests. Such tests territorialize physical space, with classrooms structured for silent, independent practice rather than collaboration or conversation. Conceptually, the individual is framed as the maker of everything and the outcome is key, resulting in the requirement of 'docile bodies' (Dixon, 2011: 5), rather than active, vocal or exuberant ones. The high-stakes nature of these tests shapes what happens in classrooms and creates a reality around them. A school's success at the hands of 'the state mechanism' (Deleuze and Guattari, 1987: 359) depends on the children's achievement in these tests. They therefore focus the school's teaching, narrowing the scope of what classrooms and schools are used for. Listening to the sound of Minecraft club suggests that the club gave children a chance to challenge this otherwise restricted, state-defined space. Given the potential adult and policy-led territorialization of space during the time-tabled school day, the role of the after-school club that enables different discourses to circulate becomes increasingly significant.

Vocalizing affective space

The sonic/visual analysis helped to reveal that sounds also had individual origins, effects and affects, particularly in terms of participants' affective engagement with song. At regular intervals, children's speech took on a rhythmic, song-like quality. Often, such 'spontaneous vocalising' (Young, 2004: 60) turned into fully fledged singing, which was one of the club's defining 'soundmarks' (Shafer, 1993: 10). Elsewhere I have written about the children's use of song in Minecraft club (Bailey, 2016), focusing on the meanings of the children's spontaneous composition of a song called 'Free the Sheep'. Other examples included 'The GoPro Song' (sung in celebration of the branded video camera); 'Cleopatra, Comin' Atcha' (reappropriated into play from a Sex Education video watched by the children) and Rossini's 'William Tell Overture' (the humming of which often accompanied play).

Whatever the potential meanings of these individual performances, each had in common the generation of 'affective intensity' (Hollett and Ehret, 2015: 1857). During singing, the embodied, felt resonances produced by sound reverberating through and from multiple bodies had a potential impact on those producing and hearing the sounds. Deleuze and Guattari (1987: 311)

suggest that singing can provide comfort: a child 'gripped with fear, comforts himself by singing under his breath', another hums 'for strength for the schoolwork she has to hand in'. In the club, singing imposed order as the affective intensity around singing provided a kind of comfort for the individuals involved, in the midst of the club's cacophonous soundscape.

For Deleuze and Guattari (1987: 313), 'rhythm is the milieu's answer to chaos'. For the individual, the social environment is made more stable, ordered, predictable and therefore more negotiable though the presence of felt rhythm, through music. Deleuze and Guattari (1987: 311) suggest that song provides a 'calming and stabilizing . . . centre in the heart of chaos'. In the club, songs drawn from the children's own experiences provided a kind of recognizable order amid the 'loops, knots, speeds, movements, gestures, and sonorities' (p. 312) of the club's wider soundscape. Here, then, I suggest that the children's generation of sound, through singing and vocalizing, provided them with this 'calm and stable, centre' (Deleuze and Guattari, 1987: 311), whilst also creating a sense of togetherness as they negotiated their lived experiences of this complex educational space.

Sounds as significant and social

Sound was an important component of the exuberant nature of lived experience in the club. The sonic/visual analysis helped provide insights into how sound was used by children to create this space. This reveals a lively, erratic soundscape that reflects the complex nature of the participants' lived experience. Sound was a constant presence which made the children's lived experience of the club distinct from other activities in their classroom. The soundscape was the noise generated by a particular way of being together. Noise was not inevitable; noise was permitted and ever present, in a way that it might not have been during a more formal lesson in school. However, an alternative, muted Minecraft club is not unthinkable. Silence could have been enforced by insisting that children remained in their seats at designated desks, that they did not speak to each other, instead focusing on their computer. Headphones could have been worn to encourage the children to focus on the soundscape generated by the game.

This would have prevented conversation, singing and laughter – and would have shaped an altogether different space. It is possible to envisage a club where the one-to-one relationship between player and computer is enforced, where participation is contained and characterized by ordered, quiet, individualized routine. In this scenario, the potential for social meaning making and creative play are dramatically reduced. Such a scenario would have fundamentally changed the character of the club. Yet the 1:1 relationship between user and screen is often how technology use is framed, particularly in the formal discourse of schools and education policy, where accountability relies on individual progress.

The use of screen-based technology is often envisaged as anti-social or a distraction from the lived moment; indeed, Turkle (2011: 1) cautions that

'our networked life allows us to hide from each other, even as we are teth-ered to each other . . . we'd rather text than talk.' Of course, technology is accepted as opening new possibilities for remote connection, but this is some-times framed as being to the detriment of our face-to-face experiences. This analysis helps to reveal that the presence of technology does not inevitably negate sociability. Here, noise underpinned this sociability and a creative way of being together. Technology is rarely associated with the collective sound of human interaction, be it in institutions, in public places or in private contexts. However, the analysis of lived experience in this context demonstrates that new communicative opportunities emerged around this collaborative on- and off-screen task, often as a result of the sound that was generated.

DISCUSSION

I have already intimated that this sonic/visual analysis makes certain aspects of the lived experience apparent that could otherwise go unnoticed, demon-strating the importance of sound in relation to territorial, affective and social dimensions of lived experience. As such, I suggest that this interpretive analy-sis 'facilitated understandings that couldn't be attained otherwise' (Sousanis, 2017: 190). Here I develop this idea by considering specifically the role of the visual in relation to sound.

Firstly, using drawing as a precursor to writing about lived experience allowed me to play with, and to animate, different orientations of the sound data, collapsing temporal and spatial aspects together on a page. Drawing allowed for the non-linear combination of the diverse aspects of the sound in one place. Rather than pursuing a chronological or hierarchical response necessitated by using writing, drawing enabled me to engage a 'visual voice' in order to consider 'a set of ideas all in one go' (Gauntlett, 2007: 126). This revealed sounds as entangled and interconnected, rather than as separate and atomized. This led to an understanding of the 'auratic' (Taussig, 2011: 13) aspects of the soundscape as interdependent and interrelated. The club's soundscape was revealed as a fluid mixture of multiple dimensions. This included the sonic footprint of the club, its characteristic sounds: the keynotes, signals and soundmarks (Schafer, 1993). The soundscape also featured the conscious, sometimes strategic, production of sound that helped to produce the space. Combining these aspects together, through the sonic/visual analy-sis, helped illuminate, for instance, how sound involved the creation of terri-tory, was infused with power relations, was affective and social. What could otherwise have been described or, perhaps, dismissed as a mere soundtrack to the club became the means for understanding sound as political: a means of shaping and reshaping educational space in the lives of children.

Secondly, drawing offers a method of making meaning that is open to interpretation and beneficially imprecise when dealing with sound. Whilst a lack of semiotic precision means that drawing is not always a suitable mode for

conveying unambiguous meaning, it is adept at dealing with the affective, felt aspects of lived experience. Just as we can understand sound as an embodied, rather than cognitive, form of knowing (Feld, 2012; Gershon, 2013b), drawing is also understood to have similar properties as an embodied method of sense making (Causey, 2017; Taussig, 2011). Because the sound of the club was affective in quality, using drawing helped to account for, and manipulate, the affective dimension of sound in a way that would not have been possible using words alone. The production of the sound map (Figure 1) enabled exploration and articulation of the quality of sound in the club without having to narrow down my response to finding the 'right' or most accurate words. Taussig (2011: 13) suggests that 'drawing intervenes in the reckoning of reality.' This idea of drawing making an intervention into thinking helps articulate the power of such methods. If we accept that the social world is always in motion, that the world is 'teeming', arguably the movement necessitated by a drawn response enables an engagement with the motions that were characteristic of a specific soundscape. Here, drawing helped me arrive at a verbal understanding more effectively, giving time to reflect on, process and experience the nature of the soundscape.

Taussig (2011: 22) states that 'drawing is like a conversation with the thing drawn, likely to involve prolonged and total immersion.' As such, drawing provided a way to converse effectively with the aural dimension of a fieldsite. This conversation, mediated by an attempt to use 'simple lines to communicate honestly' (Causey, 2017: 59), afforded thinking in ways that were less linear, and more intuitive and tacit, than using text alone. My experiences were fused with representations of the sounds, as the map became a personal response to the soundscape. In short, employing a mixed sonic/visual approach to analysis provided a means of facilitating discovery, generating thinking space by reconfiguring my experience of data. This enabled me to conceptualize and to know the lived experience of research participants in sensory and affective ways, helping to make embodied sense of an embodied sense. Whilst the children's absence from the analytical processes here could be considered a shortcoming, my own presence nevertheless allowed me an insight as an active participant. I do not claim here to speak of a generic or universal experience but have reflected as a result of my own direct involvement in the fieldsite. I would also advocate for engaging participants in future applications of the techniques outlined in this article, to provide additional analytical insights arising from the visual interpretation of soundscape data.

CONCLUSION

This article has argued for interpretation as a valid method of enquiry. Here, analytical interpretation involved the production of a visual response to soundscape data, as a means of shedding light on lived experience. I have shown how drawing facilitated engagement with sound data, resulting in the

questioning of established discourses, particularly around the use of technology and classroom expectations, in relation to territory, power, affect and sociability. These dimensions of lived experience were illuminated both by a focus on sound and through the creative visual response. I have suggested that this particular interpretation is valuable for a number of interrelated reasons. Focusing on sound led to examination of aspects of the fieldsite that may otherwise have been overlooked; employing drawing as part of the interpretative process also helped to represent sound in a way that accounted for the affective embodied dimensions of sound, in turn making use of embodied as well as cognitive sense of the fieldsite. By seeking to 'map' rather than 'trace' the soundscape (in a Deleuzo–Guattarian sense), using drawing rather than words, the reader is invited into the interpretive process, thus resulting in a transparent yet nuanced analysis process.

I have made it clear how visual methods can help to aid thinking through interpretation, particularly when dealing with sensory data in ethnographic enquiry. I suggest that over reliance on traditional methods of research risks resorting to, and thereby reinforcing, established discourses. Artistic responses, such as drawing, are required to counterbalance the dominance of the written word in academic enquiry, in situations where subject is something as intangible (and, therefore, open to interpretation) as lived, social experience. Mobilizing interpretive sensory methods helps us to intervene in the 'reckoning of reality' (Taussig, 2011: 13) in a way that does not claim empirical objectivity, but offers us alternative and transparent ways of seeing and knowing, showing and understanding.

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